Krebs, Wilhelm. Rechnischer Nachweis eines Einflusse der Sonnentätigkeit auf die erdmagnetischen Störungen vom November, 1905. Pp. 309–311.

Mache, Heinrich. Ueber die Diffusion von Luft durch Wasser. Pp. 316–318.

Das Wetter. Berlin. 23 Jahrgang. Apr., 1906.

Klengel, Freidrich. Die Niederschlagsverhältnisse von Deutsch-Südwestafrika. Pp. 73–77.

Staikof, D. Systematische Beobachtungen der Dämmerungserscheinungen, Pp. 78–83.

—— Dämmerungsbeobachtungen in Sofia 1905. Pp. 84–85.

Assman, J., Sen. Der schneereiche Winter 1905–06. Pp. 93–95.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

H. H. KIMBALL, Librarian.

The following titles have been selected from among the books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be loaned for a limited time to officials and employees who make application for them.

Abbe, Cleveland, jr.
The climate of Alaska. (Extr. fr. Professional paper No. 45, U. S. Geological Survey.) Pp. 133–200. 4°. Washington. 1906.

Alexander [Aphrodisiensis].
In Aristotelis meteorologicorum libros commentaria. Consilio et auctoritate Academiæ litterarum regiæ Borussicæ. Edidit Michael Hayduck. xiii, 255 pp. 4°. Berolini. 1899.

Barus, Karl.
A continuous record of atmospheric nucleation. (Smithsonian contributions to knowledge. No. 1651.) xvi, 226 pp. f°. Washington. 1905.

Bologna. Università. Osservatorio.
Osservazioni meteorologiche ... 1904. 29 pp. 4°. Bologna. 1905.

Bracke, A.
Les précipitations dans la région de Mons. 91 pp. 8°. Mons. 1906.

Chevreuse (France). Observatoire.
Météorologie 1903–1904–1905. 24 pp. 8°. n. p. n. d.

Colegio de San Juan Nepomuceno. (Saltillo, Mexico). Observatorio Meteorologico.
Año de 1905. 40 pp. f°. [Saltillo. 1906.]

Denmark. Danske Meteorologiske Institut.
Nautisk-meteorologisk Aarbog, 1905. xxix, 159 pp. 4°. Kjobenhavn. 1906.

Endrös, Anton.
Seeschwankungen (Seiches) beobachtet am Chiemsee ... Dissertation. (Vorgelegt am 23 October 1903.) 117 pp. 8°. Traunstein. 1903.
Die Seiches des Waginger-Tachingersees. (S. A.-Sitzber. Ak., München. Bd. 35, 1905, Heft 3.) Pp. 447–476.

Flammarion, Camille.
L'atmosphère et les grands phénomènes de la nature. 370 pp. f°. Paris. 1905.
Les phénomènes de la foudre. 338 pp. 8°. Paris. [1905.]

France. Bureau Central Météorologique.
Annales. 1902. I. Memoires. xii, 181 pp. f°. Paris. 1905.
Annales. 1902. II. Observations. v. p. 4°. Paris. 1905.
Annales. 1902. III. Pluies en France. (6), 143 pp. 4°. Paris. 1904.
Annales. 1903. III. Pluies en France. (6), 143 pp. 4°. Paris. 1905.

Great Britain. Meteorological Office.
The Beaufort scale of wind force. ... With a report ... by G. C. Simpson, and notes by G. H. Darwin, W. H. Dines, and Campbell Hepworth. (Official No. 180.) 54 pp. f°. London. 1906.
Report of the meteorological council ... year ending March 31, 1905. 227 pp. 8°. London. 1906.

Hamberg, H[ugo] E[manuel].
Moyennes mensuelles et annuelles de la température et extrêmes de température mensuels pendant les 150 années 1756–1905 a l'Observatoire de Stockholm. (Akad. Handl., Stockholm. Bd. 40. No. 1.) 59 pp. f°. Uppsala and Stockholm. 1906.

House, William.
The climate of the Pacific northwest and its influence on nervous and mental disease. (Repr. fr. Med. sentinel, Portland, Oreg., Mar., 1906.) 5 pp. 8°.

Humphreys, W[illiam] J[ackson].
An attempt to find the cause of the width of the spectrum end of the pressure shift. (Repr. Astrop. j., Apr., 1906.) Pp. 233–247. 8°.

Hungary. Königlich-ungarische Central-Anstalt für Meteorologie und Erdmagnetismus.
Bericht über die Thätigkeit ... 1904. 38 pp. 8°. Budapest. 1905.

Internationale Seismologische Assoziation.
Uebereinkunft betreffend die Organisation der internationalen Assoziation. Juli, 1903. Abgeändert August, 1905. 4 pp. 4°. n. t. p.

Internationale Seismologische Konferenz. Berlin, August 15, 1905.
Sitzungsberichte. 11 pp. 4°. n. t. p.

Japan. Central Meteorological Observatory.
[Observations at Japanese meteorological stations in China.] 1904, 1905. 4°. Tokio. n. d.

London. Solar Physics Observatory. South Kensington.
Report ... upon the work ... 1905. 21 pp. 8°. n. t. p. [1906.]

Madras. Kodaikanal and Madras Observatories.
Annual report ... for 1905. 25 pp. f°. Madras. 1906.

Marchi, Luigi de.
Considerazioni generali sulla circolazione delle atmosfere della terra, del sole e di Giove. (Atti Istit., Venezia. 1905–6, Tomo 65, Parte seconda.) Pp. 591–610. 8°. Venezia. 1906.

New South Wales. Government Astronomer.
Mean annual rain map of New South Wales. 1 chart, 25 by 31 cm. [Sydney.] n. d.

Nilsson, H.
Einige Beobachtungen über die tägliche Variation in Leitungsvermögen der atmosphärischen Luft in Upsala. (Oefversigt. Stockholm. 1902. No. 7.) Pp. 243–248. 8.

Platania, Giovanni and Platania, Gaetano.
Sul magnetismo prodotto da fulminazioni. (Estr. Mem. accad. Zelanti. Acireale. 3 ser. Vol. 4, 1905–6.) 8 pp. 8°. Acireale. 1906.

Prussia. Königliches Preussisches Meteorologisches Institut.
Ergebnisse der meteorologischen Beobachtungen in Potsdam ... 1902. xv, 118 pp. f°. Berlin. 1905.
Ergebnisse der Niederschlagsbeobachtungen ... 1902. xlix, 243 pp. f°. Berlin. 1905.

Scott, Robert H.
Elementary meteorology. 8th thousand. xiv, 410 pp. 8°. London. 1903.

Schindler, Hermann.
Beitrag zur Kenntnis der Niederschlagsverhältnisse Mährens und Schlesiens. 13 pp. 8°. Brünn. 1904.

Trabert, Wilhelm.
Meteorologie und Klimatologie. 132 pp. 8°. Leipzig. 1905.

Uruguay. Instituto Nacional para la Prediccion del Tiempo.
Año 1906, Numero 1. 8°. Montevideo. 1906.

Vincent, J.
Les variations du temps et leur prévision. (Extrait de l'Annuaire météorologique pour 1906.) 28 pp. 12°. Bruxelles. 1905.

Watkins, V. E.
Neurasthenia among blondes in the Southwest. (Repr. fr. N. Y. med. j. and Phila. med. j., Dec. 30, 1905.) 3 pp. 12°.

Westman, J.
Einige Messungen über die Ablationsgeschwindigkeit der Schneedecke in Stockholm, und bei Kärrgrufvan im Frühling 1902. (Oefversigt. Stockholm. 1902. No. 9.) Pp. 325–334. 8°.

Western Australia. Government Astronomer.
Meteorological observations. .. Perth observatory and other places. .. 1902. 143 pp. f°. Perth. 1904.

Woodruff, Charles E[dward].
Complexions of the insane. (Repr. fr. N. Y. med. j. and Phila. med. j., Dec. 23, 1905.) 7 pp. 12°.
The neurasthenic states caused by excessive light. (Repr. fr. Med. record, Dec. 23, 1905.) 21 pp. 12°.

Wundt, Walter.
Barometrische Teildepressionen und ihre Wellenförmige Aufeinanderfolge. 21 pp. f°. [Berlin. 1904.]

WEATHER BUREAU MEN AS EDUCATORS.

The following lectures and addresses by Weather Bureau men are reported:

Mr. W. T. Blythe, April 18, 1906, before the Railroad Branch of the Young Men's Christian Association, Brightwood, Ind.; also April 28, 1906, before the Indiana Association of Science and Mathematics Teachers, Indianapolis, Ind., on "The History of Meteorology and of the U. S. Weather Service".

Mr. N. B. Conger, April 29, 1906, before the Business Men's Class of Brewster Church, Detroit, Mich., on "The Weather Bureau and its Work".

Prof. H. J. Cox, March 7, 1906, before the Geological Club, University of Chicago; also March 9, before the Geographic Society of Chicago, in the exhibition room of the local Weather Bureau office, also March 20, before the Department of Science and Philosophy, Lakeview Woman's Club, on "Chicago Weather", with lantern slide illustrations.

Mr. David Cuthbertson, April 24, 1906, before the North Buffalo, N. Y., Young Men's Literary Association, on "The Workings of the U. S. Weather Bureau and its Value".

Mr. G. T. Todd, April 24, 1906, before the Men's Guild of St. Paul's Church, Albany, N. Y., on "Meteorological Instruments, Weather Maps, and Forecasting".

Mr. F. J. Walz, April 5, 1906, before the Male High School, Louisville, Ky., also April 6, before the Female High School, on "The Forecast Work of the Weather Bureau", with lantern slide illustrations.

Classes from colleges, schools, academies, etc., have visited Weather Bureau offices, to study the instruments and equipment and receive informal instruction, as reported from the following offices:

Albany, N. Y., April 11, 1906, 35 men from the local Young Men's Christian Association.

Buffalo, N. Y., April 27, 1906, a physical geography class from the State Normal School.

Charlotte, N. C., April 28, 1906, the junior physics class from Elizabeth College.

Detroit, Mich., April 13, 1906, a class from the Leggett Home and Day School.

Evansville, Ind., April 9, 1906, a section of the senior class of the Henderson, Ky., High School.

Iola, Kans., April 3 and 6, 1906, a class in physical geography from the Iola High School, in two sections.

La Salle, Ill., during the middle of April, several visits by the class in general science of the La Salle-Peru Township High School.

Little Rock, Ark., April 2, 1906, the senior physics class of the local High School.

Moorhead, Minn., April 10 and 11, 1906, the physical geography class of the Normal School, in two sections.

Pittsburg, Pa., April 16 and 17, 1906, the class in physics of the Fifth Avenue High School, in sections.

Springfield, Ill., April 12, 1906, over 150 pupils of the local High School.

Syracuse, N. Y., April 5, 1906, a class from the local High School.

MR. R. F. deGRAIN.

Mr. Reinhold Frederick deGrain, clerk of class I in the Weather Bureau, died at his residence in Washington, D. C., on April 25, 1906. Mr. deGrain, born in Marien, Werder, Prussia, July 18, 1840, came to America in 1862, and at once entered the Union Army (the avowed purpose of his immigration), and was discharged after an honorable service of three years' duration. He joined the Signal Corps in 1874, and, with the exception of about four years, served continuously in that corps and the Weather Bureau until his death. His duties in the Bureau were those of draftsman, for which he had been fitted by education in Germany. Mr. deGrain enjoyed the high respect both of his comrades in the Grand Army of the Republic, of which he had long been an active member, and of his associates in the Weather Bureau. He was buried in Arlington National Cemetery.—*J. P. C.*

FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

High barometric pressure prevailed over the eastern Atlantic during the first half of April. From the 16th to 19th a disturbance moved from Portugal northeastward over continental Europe. During the last decade of the month pressure was low over the British Isles, with reported minimum, 28.98 inches, at Sumburg Head, Scotland, on the 28th. In the vicinity of the Azores the barometer was high except on the 1st, 2d, and 12th, when slight depressions were shown in that region. Over the western Atlantic there were frequent fluctuations of the barometer until the 17th, after which the pressure continued low, with a minimum of 29.00 inches at Eastport, Me., on the 24th.

The first important storm of the month in the United States occupied middle and southern portions of the Rocky Mountain and Plateau regions from the 1st to 7th, crossed the lower Missouri Valley on the 8th, the Great Lakes on the 9th and 10th, and by the evening of the 10th had united on the southern New England coast with a secondary disturbance that had developed on that date over Virginia. During the 11th the storm center moved northeastward over the Canadian Maritime Provinces. This disturbance was attended by snow in the northern Plateau and northern Rocky Mountain districts, by rain from the Pacific coast over middle and southern portions of the Plateau and Rocky Mountain districts, and, in connection with low area III, by rain generally east of the Rocky Mountains. From southern California over western Arizona, southern Nevada, and southwestern Utah, and in areas from the Mississippi and lower Missouri valleys to the Atlantic coast the rainfall was heavy, and augmented flood stages in the lower Ohio and lower Mississippi rivers and tributaries. On the 10th and 11th high easterly shifting to northwesterly winds prevailed on the New England coast.

From the 10th to 15th a disturbance moved from California to the St. Lawrence Valley. On the 10th and 11th rain fell from the Pacific coast over the middle Rocky Mountain districts, and extended on the 12th over the Missouri and middle and upper Mississippi valleys, with snow in the northern Rocky Mountain districts. During the afternoon of the 12th severe local storms were reported in an area extending from southern Kansas to northern Texas. During the 13th heavy rain and thunderstorms occurred in the lower Mississippi Valley and the rain area extended over the Ohio Valley and the upper Lake region. The rain area reached the Atlantic coast on the 14th and during the night of that date was heavy in the Middle Atlantic States.

In connection with a disturbance that moved from the British Northwest Possessions to the Maine coast from the 19th to 22d and two disturbances, secondary thereto, that appeared over the Middle Atlantic States and passed thence northeastward, rain fell in the Middle Atlantic and New England States and snow from the upper Ohio Valley over the mountains of Pennsylvania and the interior of New York and New England from the 21st to 23d, and gales prevailed along the middle Atlantic and New England coasts from the 22d to 24th. From the 22d to 24th rain fell in the Pacific coast States. From the 23d to 26th a disturbance moved from the British Northwest Possessions to Minnesota, attended on the 25th by showers and thunderstorms in the Northwestern States. From the 26th to 30th a disturbance advanced from the southeastern Rocky Mountain slope to the St. Lawrence Valley, attended on the 26th and 27th by snow and rain in Colorado, and on the 27th by thunderstorms in the lower Missouri Valley. On the night of the 26th severe local storms were reported at several points in Texas. From the 27th to the close of the month a disturbance moved from the north Pacific coast to western Kansas, attended by rain from the Pacific States to the Mississippi and Ohio valleys, and by snow at Flagstaff, Ariz.

On the morning of the 2d light frost occurred on the east Gulf and south Atlantic coasts, and on the 2d and 3d heavy frost was reported at Wilmington, N. C. From the 15th to 18th a frost-bearing cool wave advanced from the Missouri and upper Mississippi valleys to the middle Atlantic coast States, and heavy frost occurred in the mountains of Virginia and North Carolina on the 17th and 18th. On the 23d heavy frost was reported in the upper Mississippi and Ohio valleys, and on the 24th from the lower Lake region and upper Ohio Valley over the Middle Atlantic States and North Carolina,